REMARKS/ARGUMENTS

Claims 1-70 are pending in the application and are rejected by the Examiner.

Claims 1, 17, 18, 20, 31, 32, 46-50, and 64-70 have been amended. Applicant submits that no new subject matter has been introduced by the amendments. Reconsideration of the rejections is requested in light of the arguments provided below.

THE SPECIFICATION

The specification has been amended to correct inadvertently introduced typographical mistakes. Applicant submits that no new subject matter has been introduced by the amendments

THE CLAIMS

Rejections under 35 USC 102

Claims 1, 2, 4-11, 14, 18, 20-28, 31-34, 36, 37, 39-44, 46-48, 50-52, 54, 55, 57-62 and 64-70

Claims 1, 2, 4-11, 14, 18, 20-28, 31-34, 36, 37, 39-44, 46-48, 50-52, 54, 55, 57-62 and 64-70 are rejected under 35 U.S.C. 102(e) as being anticipated by Maher, III et al (U.S. Patent No. 6,654,373) (hereinafter "Maher"). Applicant respectfully disagrees.

Claims 1, 2, 4-11, and 14

Applicant submits that claim 1 is patentable over Maher for at least the reasons discussed below. Applicant's claim 1 recites, in part;

> a plurality of ingress data ports, each said ingress data port coupled to a
> corresponding first processor and adapted to receive an input data stream from the
> corresponding first processor, each input data stream formed of ingress data packets, each
> ingress data packet including priority factors coded therein; (Applicant's claim 1, in part,
> emphasis added)

Accordingly, claim 1 specifically recites that each ingress port is coupled to a corresponding first processor and receives an input data stream from that corresponding first

processor. For example, as depicted in Fig. 1 of the application, ingress data port 16a is coupled to corresponding first processor 12a and receives an input data stream from corresponding first processor 12a and ingress data port 16b is coupled to corresponding first processor 12b and receives an input data stream from first processor 12b. Applicant submits that at least this feature of the invention recited in claim 1 is not taught or anticipated by Maher.

The Office Action states that the "plurality of ingress ports . . ." feature of claim 1 is taught by Fig. 2, reference 102, col. 6 lines 5-14 in Maher. Applicant respectfully disagrees. The description in Maher in this section describes that input physical interface 102 can consist of a plurality of ports and can accept a number of network speeds and protocols. Further, the section describes that the input physical interface takes the data from the physical ports, frames the data, and then formats the data for the placement on a data bus 126.

Applicant submits that the Office Action fails to clearly identify what components in Maher are comparable to the "first processors" recited in claim 1. Further, Applicant submits that there is no teaching in the section of Maher discussed above that each port of input physical interface 102 is coupled to a corresponding first processor and receives an input data stream from that corresponding first processor, as recited in claim 1. In Maher, input physical interface 102 merely provides a means for network apparatus 102 to receive data. There is no teaching in Maher that each port in the input physical interface is coupled to a corresponding first processor. Further, the Office Action is unclear as to which element in Maher is the "second processor" as recited in claim 1.

Applicant submits that claim 1 is patentable over Maher for at least the reasons discussed above.

Applicant further submits that the dependent claims 2, 4-11, and 14 that depend either directly or indirectly from claim 1 are also not anticipated by Maher for at least a similar rationale as discussed above for claim 1. Applicant submits that the dependent claims are patentable for additional reasons.

Claim 18

Applicant submits that claim 18 is patentable over Maher for at least a similar rationale as discussed above for claim 1.

Claims 20-28

Independent claim 20 specifically recites:

an ingress data port adapted to receive the input data stream from the first processor via a first data link having a first bandwidth, the input data stream formed of ingress data packets, each ingress data packet including priority factors coded therein;

an aggregation module coupled to said ingress data port, said aggregation module adapted to analyze and selectively recombine the ingress data packets in response to the priority factors so as to generate an aggregated data stream for a second data link having a second bandwidth smaller than the first bandwidth; (Applicant's claim 20, emphasis added)

As recited above, claim 20 specifically recites that the input data stream is received from the first processor via a first data link having a first bandwidth and the aggregation module generates an aggregated data stream for a second data link having a second bandwidth smaller than the first bandwidth. The aggregation module thus receives the input data stream via a first data link having the first bandwidth and generates an aggregated data stream for a second data link having a second bandwidth smaller than the first bandwidth. Applicant submits that at least this feature recited in claim 20 is not anticipated by Maher.

The Office Action alleges that the above recited feature of claim 20 is taught by Maher in Fig. 2, reference 102, col. 6 lines 5-14 and col. 7 lines 47-52 and compares the traffic flow scanning processor 140 depicted in Fig. 2 of Maher to the aggregation module recited in claim 18. Applicant respectfully disagrees.

As discussed above, col. 6 lines 5-14 of Maher describe an input physical interface 102 that consists of a plurality of ports, and can accept any number of network speeds and protocols. Col. 7 lines 47-52 of Maher describes how a QoS processor assigns the necessary bandwidth to the traffic flows, such as VOIP, video and other flows with high quality and bandwidth requirements, while assigning remaining bandwidth to traffic flows with low quantity requirements such as email and general web surfing to low priority queues.

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Amdt. dated October 16, 2007
Reply to Office Action of July 16, 2007

PATENT

However, Applicant submits that neither of these two sections of Maher taken individually or together teach that data link 126 of <u>traffic flow scanning processor 140</u> depicted in Fig. 2 of Maher (which the office action deems is the same as the aggregation module recited in claim 18) that is used for outputting data from traffic processor 40 has a smaller bandwidth than the data link 126 that is used for carrying the packets to processor 40 as depicted in Fig. 2 of Maher. In fact, in Maher, the same reference numeral 126 is used to refer to both the data link inputting data to traffic processor 140 and outputting data from traffic processor 140, thereby implying that there is no difference in bandwidths between the two links.

Applicant thus submits that claim 20 is not anticipated by Maher for at least the above discussed reason.

Applicant further submits that the dependent claims 21-28 that depend either directly or indirectly from claim 20 are also not anticipated by Maher for at least a similar rationale discussed above for claim 20. Applicant submits that the dependent claims are patentable for additional reasons.

<u>Claim 31</u>

Applicant submits that claim 31, as amended, is not anticipated by Maher. In addition to other features, amended claim 31 recites:

> an egress data input port adapted to receive the aggregated input data stream from the second processor <u>via a first data link having a first bandwidth</u>, the aggregated data stream formed of egress data packets;
>
> a plurality of egress data output ports, each said egress data port adapted to output an output data stream to a corresponding one of the first processors <u>via a data link having a bandwidth greater than the first bandwidth</u>; (Applicants claim 21 in part, emphasis added)

As recited above, claim 31 specifically recites that the aggregated input data stream is received from the second processor via a first data link having a first bandwidth and an output data stream is output to a first processor via a data link having a bandwidth greater than the first bandwidth. Applicant submits that at least this concept recited in claim 31 is not anticipated by Maher.

As the discussed above with respect to claim 20, Maher fails to teach data links with different bandwidths as recited in claim 31. Applicant thus submits that claim 31 is patentable over Maher for at least this reason.

Claims 32-34, 36, 37, and 39-44

Applicant submits that claim 32 is not anticipated by Maher. Claim 32 specifically recites in part:

storing an analyzed data packet in a memory;

generating a packet descriptor for the analyzed ingress data packet, the packet descriptor containing a reference to a memory location of its analyzed data packet stored in the memory;

placing the packet descriptor in a priority queue corresponding to the priority class of the data packet;

arbitrating and selecting a packet descriptor from among the priority queues using selection logic implementing a queue scheme;

reading a data packet corresponding to the selected packet descriptor from the memory; (Applicant's claim 32, in part, emphasis added)

As shown above, claim 32 specifically recites generating a packet descriptor that contains a reference to a memory location of the analyzed packet stored in the memory. It should be noted that the packet descriptor is separate from the packet itself. The packet descriptor is placed in a priority queue corresponding to the priority class of the data packet. Further, a data packet corresponding to the selected packet descriptor is read from the memory. Applicant submits that the concept of a packet descriptor is not described by Maher and consequently all features in claim 32 that use the packet descriptor are also not taught by Maher.

The Office Action alleges that the feature of generating a packet descriptor is disclosed by Maher in Fig. 2, 116, col. 7 lines 34-44 and placing of the packet descriptor in a priority queue is taught in col. 7 lines 41-44. Further, the Office Action alleges that the features of arbitrating and selecting using a packet descriptor is disclosed in Maher in col. 7 lines 18-28

and reading a data packet corresponding to the selected packet descriptor from the memory is

disclosed by Maher in col. 7 lines 36-40. Applicant respectfully disagrees.

Applicant submits that the above identified sections of Maher fail to teach

anything about a packet descriptor. Col. 7 lines 34-44 describe that the quality of service (QoS)

processor 116 depicted in Fig. 2 of Maher stores packets in its own packet storage memory 118

for forwarding. Col. 7 lines 41-44 of Maher teaches about assigning a data packet to one of the

internal quality of service queues 132 and further that the quality of service queues can be

assigned priority relative to one another. This allows QoS processor 116 described in Maher to

assign the necessary bandwidth to traffic flows.

However, as indicated above, and specifically recited in claim 32, a packet

descriptor is separate and different from the packet itself. Applicant submits that Maher does not

teach anything about packet descriptors but only teaches about analyzing and storing the packets

themselves. Applicant thus submits that the concept of a packet descriptor, as recited in claim

32, is not taught or disclosed by Maher. Consequently, Applicant submits that the various

features of claim 32 that recite the packet descriptor are also not taught or disclosed by Maher.

Applicant thus submits that claim 32 is not anticipated by Maher for at least the

reasons discussed above.

Applicant further submits that the dependent claims 33, 34, 36, 37, and 39-44 that

depend either directly or indirectly from claim 32 are also not anticipated by Maher for at least a

similar rationale discussed above for claim 32. Applicant submits that the dependent claims are

patentable for additional reasons.

Claim 46

Applicant submits that claim 46 is not anticipated by Maher. Claim 46, as

amended recites:

46.   A method for aggregating a plurality of input data streams from first
processors into one data stream for a second processor, said method comprising:
receiving an input data stream from each of the first processors, each input data
stream formed of ingress data packets, each ingress data packet including priority factors
coded therein, each first processor having a corresponding analyzer;

generating an aggregated data stream by analyzing and combining the plurality

of input data streams into one aggregated data stream in response to the priority factors,

the priority factors including an indication of whether the ingress packet contains

protocol data or not, <u>wherein the analyzing comprises, for each first processor, analyzing</u>

<u>the input data stream received from the first processor using an analyzer corresponding to</u>

<u>the first processor</u>; and

outputting the aggregated data stream to the second processor. (Applicant's

claim 46, emphasis added)

As amended, claim 46 specifically recites that <u>each first processor has a</u>

<u>corresponding analyzer that analyzes the input data stream received from the first processor</u>.

Applicant submits that at least this feature recited in claim 46 is not taught by Maher.

The Office Action states that the feature of generating an aggregated data stream

by analyzing and combining, as recited in claim 46, is taught by Maher in Fig. 2, reference 140,

col. 6 lines 15-25. Applicant respectfully disagrees.

First, the Office Action fails to specifically identify what are the "first processors"

in Maher. Further, the section of Maher pointed out by the Office Action describes processing

performed by traffic flow scanning processor 140. However, as evident from Fig. 2 in Maher,

there is only one traffic flow scanning processor -- not one corresponding to each first processor

as recited in claim 46. Consequently, Maher also fails to teach that the input data stream

received from a first processor is analyzed using the analyzer corresponding to the first

processor, as recited in claim 46.

Applicant thus submits that claim 46 is not anticipated by Maher for at least the

reasons discussed above.

Claim 47

Applicant submits that claim 47 is patentable over Maher for at least a similar

rationale as discussed above for claim 20.

Applicant's claim 47 recites:

47.   A method for aggregating data packets received from a first processor

for a second processor, the <u>first processor being capable of outputting data with a first</u>
<u>bandwidth greater than a second bandwidth by which the second processor is capable of</u>
<u>receiving the data</u>, said method comprising:

        <u>receiving the input data stream from the first processor via a first data link</u>
<u>having the first bandwidth,</u> the input data stream formed of ingress data packets, each
ingress data packet including priority factors coded therein;

        generating an aggregated data stream by analyzing and selectively recombining
the ingress data packets in response to the priority factors, the priority factors including

        an indication of whether the ingress packet contains protocol data or not; and

        <u>outputting the aggregated data stream to the second processor via a second data</u>
<u>link having the second bandwidth.</u> (Applicant's claim 47, emphasis added)

Claim 47 thus specifically recites that the first processor is capable of outputting
data with a first bandwidth that is greater than a second bandwidth by which the second
processor is capable of receiving the data. Claim 47 recites receiving the input data stream from
the first processor via a first data link having the first bandwidth and outputting the aggregated
data stream to the second processor via a second data link having the second bandwidth.
Applicant submits that at least these features recited in claim 47 are not anticipated by Maher.

The Office Action states that the features recited in claim 47 of the first processor
being capable of outputting data with a first bandwidth that is greater than a second bandwidth
by which the second processor is capable of receiving the data claim is taught by Maher in col. 7
lines 47-52. Further, the Office Action states that the feature of receiving the input data stream
from the first processor via a first data link having the first bandwidth is taught by Maher in Fig.
2, reference 102, col. 6 lines 5-14, and the feature of outputting the aggregated data stream to the
second processor via a second data link having the second bandwidth is taught by Maher in col. 7
lines 47-52. Applicant respectfully disagrees.

As previously discussed, col. 6 lines 5-14 of Maher describe an input physical
interface 102 that consists of a plurality of ports, and can accept any number of network speeds
and protocols. Col. 7 lines 47-52 of Maher describes how a QoS processor assigns the necessary
bandwidth to the traffic flows, such as VOIP, video and other flows with high quality and
bandwidth requirements, while assigning remaining bandwidth to traffic flows with low quantity

requirements such as email and general web surfing to low priority queues.

However, Applicant submits that these sections of Maher taken individually or together do not teach about a data link having a first bandwidth for receiving data from a first processor and a second data link having a second bandwidth for outputting the aggregated data stream to the second processor, where the first bandwidth is greater than the second bandwidth. Maher does not teach that the data link for receiving and the data link for outputting data have different bandwidths, where one of the bandwidths is less than the other.

Applicant thus submits that claim 47 is not anticipated by Maher for at least the reasons discussed above.

Claim 48

Applicant submits that claim 48 is patentable over Maher for at least a similar rationale as discussed above for claims 20 and 47.

Additionally, as discussed above with respect to claim 32, Applicant submits that the concept of a "packet descriptor", as recited in claim 48, is not taught or disclosed by Maher. Applicant thus submits that claim 48 is additionally allowable over Maher for at least a similar rationale as discussed above for claim 32.

Claims 50-52, 54, 55, and 57-62

Applicant submits that claim 50 is allowable over Maher for at least a similar rationale as discussed above for claim 32.

Applicant further submits that the dependent claims 51, 52, 54, 55, and 57-62 that depend either directly or indirectly from claim 50 are also not anticipated by Maher for at least a similar rationale discussed above for claim 50. Applicant submits that the dependent claims are patentable for additional reasons.

Claim 64

Applicant submits that claim 64 is patentable over Maher for at least a similar rationale as discussed above for claim 46.

Claim 65

Applicant submits that claim 65 is patentable over Maher for at least a similar rationale as discussed above for claims 20 and 47.

Claim 66

Applicant submits that claim 48 is patentable over Maher for at least a similar rationale as discussed above for claims 20 and 47.

Additionally, Applicant submits that claim 66 is patentable over Maher for at least a similar rationale as discussed above for claim 31.

Claim 67

Applicant submits that claim 67 is patentable over Maher for at least a similar rationale as discussed above for claim 31.

Claim 68

Applicant submits that claim 68 is patentable over Maher for at least a similar rationale as discussed above for claim 46.

Claim 69

Applicant submits that claim 69 is patentable over Maher for at least a similar rationale as discussed above for claims 20 and 47.

Claim 70

Applicant submits that claim 70 is patentable over Maher for at least a similar rationale as discussed above for claims 20 and 47.

Rejections under 35 USC 103

Claims 3 and 16

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maher in view of Kadambi et al (U.S. Patent No. 6,335,935) (hereinafter "Kadambi"). Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maher in view of Fedorkow et al. (U.S. Patent No. 7,230,917) (hereinafter "Fedorkow") and further in view of Manaka et al (U.S. Patent No. 6,421,352) (hereinafter "Manaka").

Claims 3 and 16 depend either directly or indirectly from claim 1 and are thus not disclosed by Maher for at least the reasons discussed above for claim 1. Further, Applicant submits that the deficiencies of Maher are not cured by Kadambi, Fedorkow, or Manaka, considered individually or in combination. Kadambi, Fedorkow, or Manaka are cited for specific teachings and do not teach the features of claim 1 discussed above that make claim 1 patentable over Maher. Accordingly, even if Maher, Kadambi, Fedorkow, and Manaka were combined as suggested by the Office Action (even though there appears to be no motivation for the combination), the resultant combination would not render claims 3 and 16 obvious.

Claims 17 and 49

Claims 17 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher in view of in view of Abbas et al (U.S. Patent No. 6,810,046) (hereinafter "Abbas").

Applicant submits that claims 17 and 49 are not anticipated by Maher for at least a similar rationale as discussed above for claim 1. Further, Applicant submits that the deficiencies of Maher are not cured by Abbas. Abbas is cited by the Office Action for a very specific teaching and does teach the elements of claim 17 and 49. Accordingly, even if Maher and Abbas were combined as suggested by the Office Action (even though there appears to be no motivation for the combination), the resultant combination would not render claims 17 and 49 obvious.

Claims 19, 45, and 63

Claims 19, 45 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher in view of Mackiewich et al (U.S. Patent No. 7,212,536) (hereinafter "Mackiewich").

Applicant submits that claim 19, which depends from claim 18, is not anticipated by Maher for at least a similar rationale as discussed above for claim 18. Further, Applicant submits that the deficiencies of Maher are not cured by Mackiewich. Mackiewich is cited by the Office Action for a very specific teaching and does not teach the features of claim 18 discussed above that make claim 18 patentable over Maher. Accordingly, even if Maher and Mackiewich were combined as suggested by the Office Action (even though there appears to be no motivation for the combination), the resultant combination would not render claim 19 obvious.

Applicant submits that claim 45, which depends from claim 32, is not anticipated by Maher for at least a similar rationale as discussed above for claim 32. Further, Applicant submits that the deficiencies of Maher are not cured by Mackiewich. Mackiewich is cited by the Office Action for a very specific teaching and does not teach the features of claim 32 discussed above that make claim 32 patentable over Maher. Accordingly, even if Maher and Mackiewich were combined as suggested by the Office Action (even though there appears to be no motivation for the combination), the resultant combination would not render claim 45 obvious.

Applicant submits that claim 63, which depends from claim 50, is not anticipated by Maher for at least a similar rationale as discussed above for claim 50. Further, Applicant submits that the deficiencies of Maher are not cured by Mackiewich. Mackiewich is cited by the Office Action for a very specific teaching and does not teach the features of claim 50 discussed above that make claim 50 patentable over Maher. Accordingly, even if Maher and Mackiewich were combined as suggested by the Office Action (even though there appears to be no motivation for the combination), the resultant combination would not render claim 63 obvious.

Amendments to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/Sujit B. Kotwal/

Sujit B. Kotwal
Reg. No. 43,336

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
Attachments
SBK:mg
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